DESIGN DELIVERABLES
CONTENT AND FORMAT REQUIREMENTS
07-25-06

PREDESIGN DOCUMENTS

100% Draft Predesign Documents shall consist of the following (Additional types of information, processes and considerations may be required for certain projects.):

Contextual Analysis (Initiation) – (Not Required for Designated Historic Structures and Historic Landscapes)

- Initiate the Contextual Analysis Template for assessing the existing character of the project site and buildings by filling in "Description of Existing". See definitions for Site Character and Building Character prior to undertaking this effort. The "Contextual Analysis" shall be prepared utilizing the Contextual Analysis Template.

Project Program

The Project Program shall consist of the following, as applicable, for the specific project (additional considerations may be required for certain projects).

- Architectural Program

  - Functional Requirements
  - Functional Relationships (Bubble Diagrams and/or Matrices)
  - Square Foot Area Requirements
  - Dimensional Requirements and/or Limitations
  - Unique Design Parameters
  - Interpretative Program

- Site Program

  - Functional Requirements
  - Functional Relationships (Bubble Diagrams and/or Matrices)
  - Square Foot Area Requirements (i.e. parking)
  - Dimensional Requirements and/or Limitations
  - Unique Design Parameters
  - Interpretative Program

- Site Analysis

  The Site Analysis (narrative/graphic format) shall be prepared based on the following Site Analysis Checklist:

  - Topographic Analysis

- Slope Analysis
- Analysis of Physical Features
- Access and Circulation, Traffic and Parking Studies
- Vegetation
- Existing Water Bodies
- Site History
- History of Existing Structures and Landscape
- On-site Utility Studies
- Off-site Utility Studies
- Environmental Studies and Reports
- Climate Studies
- Geotechnical/soils
- Hydrologic Studies, Watershed Modeling Studies
- Project Requirements
- Existing Conditions Assessment, Hazmat Investigation

Contextual Analysis (Completion) – When Required

- Using the same character analysis process utilized for existing character, complete the Contextual Analysis Template by filling in "Description of Proposed" to document the proposed character of all new site(s) and building(s) concepts. The completed Contextual Analysis Template will be used by the NPS to assess contextual compatibility of all forthcoming design concepts.

Class C Construction Cost Estimate

- The Class C Construction Cost Estimate shall be prepared in a format matching the Class C Construction Cost Estimate sample.

Cost Comparability Data

- The Cost Comparability Data Checklist shall be prepared utilizing the Cost Comparability Data Checklist template /sample.

Scope and Cost Validation Documentation

- Document all scope, functionality and cost variations of three similar built non-NPS projects using the Scope and Cost Validation Report.

100% Draft Predesign Documents Submittal Formats

- Submit 100% Draft Predesign Documents in Hard Copy Formats only**.**

  - Project Program
  - Contextual Analysis (When Required)
  - Class C Construction Cost Estimate

- Cost Comparability Data
- Scope and Cost Validation Report

Final Predesign Documents Submittal Formats

- Submit Final Predesign Documents in both Hard Copy Formats and Electronic Formats.

  - Project Program
  - Contextual Analysis (When Required)
  - Class C Construction Cost Estimate
  - Cost Comparability Data
  - Documentation of Scope and Cost Variations
  - NPS Review Form with Responses

SCHEMATIC DESIGN DOCUMENTS

100% Draft Schematic Design Documents shall consist of the following (Additional types of information, processes and considerations may be required for certain projects.):

Design Concepts Assessment

Present and revise, as needed, site integrated massing and architectural design concepts based on the completed Contextual Analysis and Project Program. NPS will verify conformance with the Contextual Analysis. Design Concepts include:

- Sketches
- Massing Models
- Character sketches
- Diagrams
- Images

In consultation with NPS, choose Final Design Concepts for advancement to Schematic Design. Final Design Concepts may include:

- Sketches
- Massing Models
- Character sketches
- Diagrams
- Images

Schematic Design Alternatives

Each Schematic Design Alternative may consist, as applicable, of the following for the specific project (additional information may be required for certain projects):

- Drawings
    - Site Plan
    - Grading Plan
    - Demolition Plan
    - Site Details
    - Floor Plans
    - Typical Sections
    - Typical Elevations
    - Utility Plan
    - Process Diagrams
    - Character Sketches

- Presentation Options

    - Physical study model
    - Computer-generated three dimensional model images
    - Film or digital images
    - MS Powerpoint presentation
    - Color hand-drawn perspective and oblique drawing prints

Class C Construction Cost Estimates for Each Schematic Design Alternative

- Class C Construction Cost Estimates shall be prepared in a format matching the Class C Construction Cost Estimate sample.

Value Analysis Report

- Format the Value Analysis Report per the Value Analysis Report Template

Fully Developed Schematic Design Preferred Alternative

The Fully Developed Schematic Design Preferred Alternative shall consist of the following, as applicable, for the specific project (additional information may be required for certain projects):

- Site and Utility Plans
- Building Floor Plans, Elevations and Sections
- Basis of Design Report

    Narrative and drawings that capture all aspects of the project including descriptions of engineering systems, building, site and utility design; structural, mechanical, electrical, water and wastewater analysis; energy analysis; and materials analysis. The report shall include:

    - Project Program
    - Systems Analysis

        - Civil Engineering

            - Storm water management
            - Utility corridor or routing
            - Roadway and parking

        - Landscape Architecture

            - Functional analysis of site program

- Roadway and parking siting and analysis
- Vegetation and planting
- Materials analysis
- Character defining features listing (cultural landscape)
- Statement of historic significance (cultural landscape)

- Water/Wastewater Systems

  - Code analysis and verification
  - Descriptions of water/wastewater systems and alternatives
  - Design flow calculations
  - Fire flow requirements
  - Results of soils testing, e.g. percolation test results
  - Results of sampling and testing of wastewater
  - Utility corridor or routing
  - Calculations for utility system sizing
  - Modeling
  - Special studies, e.g. hazmat

- Architecture and Preservation Architecture

  - Code analysis
  - Functional analysis of building program
  - Materials analysis (interior and exterior materials and finishes)
  - Character defining features listing (historic structures)
  - Statement of historic significance (historic structures)

- Structural Systems

  - Analysis of code and loading requirements
  - Foundation system description
  - Roof and floor framing systems description
  - Lateral load-resisting elements description

- Mechanical Systems

  - Descriptions of alternative mechanical systems
  - Mechanical code review, listing special code requirements
  - Adequacy of site utilities for mechanical systems, based on actual measurements of flow and pressure available or based on information from local utility companies
  - Justifications for and descriptions of preferred alternative mechanical systems

- Electrical Systems

    - Descriptions of electrical systems and alternatives
    - Load summary and calculations (if applicable)
    - Adequacy of site utilities for electrical systems based on information from local utility companies; verification of phase and voltage available
    - Electrical code review, listing special code requirements
    - Discussion of telecommunication, fire, and intrusion

- Energy Analysis

    - Comparison of energy source alternatives, including renewable energy
    - Life cycle costing for value analysis of mechanical system alternatives
    - Preliminary mechanical system sizing
    - Energy analysis for US Green Building Council's (USGBC) LEED™ certification
    - Energy budgeting for proposed facilities

- Fire Protection

    - Fire Safety Plan (Code Analysis). RM 58 requires that all projects develop a Fire Safety Plan to address the unique fire and life safety issues. The Fire Safety Plan consists of the following elements:

        INTRODUCTION
        DESIGN TEAM
        APPLICABLE CODES
        FIRE PROTECTION/LIFE SAFETY APPROACH

        General Description
        General Fire Resistive
        Construction Aspects
        Occupancy Classifications
        Fire Resistive Separations
        Doors and Windows
        Interior Wall, Ceiling and Floor Finishes
        Decorative Structures within Buildings
        Egress
        Special Design
        Emergency Signage
        Suppression Systems

Fire Department Access
Fire Detection and Alarm System
Emergency Communication Systems
Smoke Management Description
Central Control Station
Emergency and Standby Power
Elevators

ACCEPTANCE TESTING
PERIODIC OPERATION AND MAINTENANCE
CONCLUSION

- Fully Developed Schematic Design Documents may also include the following:

  - Renderings and illustrative plans
  - Color hand-drawn perspective and oblique drawings
  - Computer-generated three dimensional model
  - Physical study model
  - Photographs or digital images
  - Microsoft PowerPoint presentation

- Class B Construction Cost Estimate

  - Class B Construction Cost Estimates shall be prepared in a format matching the Class B Construction Cost Estimate sample.

- LEED™ Project Checklist

  - Use the LEED™ Project Checklist

Cost Comparability Analysis

- The Cost Comparability Analysis shall be prepared utilizing the Cost Comparability Analysis template.

100% Draft Schematic Design Documents Submittal Formats

- Submit 100% Draft Schematic Design Documents in Hard Copy Formats only**.**

  - Schematic Design Alternatives
  - Class C Construction Cost Estimates for Each Schematic Design Alternative
  - Value Analysis Report
  - Fully Developed Schematic Design Preferred Alternative

        - Site and Utility Plans
        - Building Floor Plans, Elevations and Sections
        - Basis of Design Report:
        - Class B Construction Cost Estimate
        - LEED™ Project Checklist

    - Cost Comparability Analysis

Final Schematic Design Documents Submittal Formats

- Submit Final Schematic Design Documents in both Hard Copy Formats and Electronic Formats.

    - Schematic Design Alternatives
    - Class C Construction Cost Estimates for Each Schematic Design Alternative
    - Value Analysis Report
    - Fully Developed Schematic Design Preferred Alternative

        - Site and Utility Plans
        - Building Floor Plans, Elevations and Sections
        - Basis of Design Report
        - Class B Construction Cost Estimate
        - LEED™ Project Checklist

    - Cost Comparability Analysis

- Development Advisory Board (DAB) Support Documents

    - Submit DAB Documents in Electronic Formats.

        - Proposed Design Development and Construction Document Value Analysis activities on remaining key decisions.
        - Five or fewer graphics providing an overview of the project, for example:

            - Existing Conditions Plan - location plan
            - Site Plan
            - Building Plans for each level
            - Building Elevations
            - Building and Site Sections

        - Information required to update the Environmental Screening Form (ESF)

DESIGN DEVELOPMENT DOCUMENTS

100% Draft Design Development Documents shall consist of the following (Additional types of documents and information may be required for certain projects.):

Design Development Drawings

- Standard cover sheet
- Index sheet (may be included on cover sheet)
- General sheets

    - Overall site plan showing total project

        - Existing conditions (as base)
        - Contractor staging areas (construction storage, field office, construction camp) with adequate space or sequencing needs
        - Construction limits
        - Construction access
        - Survey control information, monuments and benchmarks with coordinates and elevations
        - Property lines with bearings, easements, utility corridors and setbacks
        - Proposed construction (i.e. outline of new structures, utilities, roadways, walks)
        - Unique construction requirements

    - Existing Conditions Plan:

        - Existing Contours and spot elevations
        - Existing Buildings and other structures
        - Existing Site Features: roads, parking, structures, walks, steps, walls, etc.
        - Existing Utilities, above and below ground, shown to scale (transformers, inlets, lift stations, propane tanks, septic tanks, culverts, etc.) include spot elevations for each, invert elevations for all below ground structures. Use appropriate symbols for small utility items (i.e. lighting, transformers, pull boxes, manholes, inlets, etc.)
        - Existing land features and vegetation

    - Overall symbol legend and abbreviations list

        - Demolition plan, as appropriate. Demolition may be shown on discipline sheets if more appropriate.

- Civil Engineering Sheets
  - Site Plans
    - Existing conditions
    - Discipline specific notes, legends, code references, symbols and abbreviations.
    - Site features: roads, parking, structures, walks, steps, walls, etc.
    - Utilities shown to scale (lighting, transformers, pull boxes, manholes, inlets, lift stations, propane tanks, septic tanks, culverts, etc.) Use appropriate symbols for small utility items (i.e. lighting, transformers, pull boxes, manholes, inlets, etc.
    - Geotechnical testing areas, boring locations, percolation test holes
    - Construction limits
  - Road and Parking
    - Existing conditions (as base) with plan and profile sheet outlines, as appropriate.
    - Plan and profile sheets
    - Typical cross-sections
    - Road and parking centerline stations, bearings, distances, and curve data (layout tables, as appropriate)
    - Intersections and other site radii identified with radius and coordinates
    - Construction limits
  - Storm Water
    - Existing conditions (as base)
    - Collection, treatment (i.e. settlement ponds), and layouts (plan and profile sheets, as appropriate)
    - Structures plans, elevations and details
    - Construction limits
  - Utilities
    - Existing conditions (as base)
    - Water systems and components: collection, treatment, and distribution layouts (plan and profile sheets, as appropriate)
    - Wastewater disposal systems and components: location, size, and layouts (plan and profile sheets, as appropriate)
    - System processes and flow diagrams

        - Utilities (identified for removal or abandonment, as appropriate)
        - Construction limits

    - Details Sheets

        - Details (i.e. trenching details, thrust blocks, water/sewer line crossings, silt fence, sewer cleanouts, manholes, valves and boxes, curb stops, fire hydrants, air release valves, sewage air release valves, irrigation details, pressure relief valves, meters and boxes, pressure regulators, check valves and boxes, backflow preventors, septic tanks, absorption trenches, distribution boxes, piping connections, water well details, lift station details, storm water details, storage tank details)

- Landscape Architecture Sheets

    - Demolition Plan (if required)

        - Existing conditions (as base)
        - Structures
        - Plant material (tree protection, plants to be removed or salvaged)
        - Utilities (identified for removal or abandonment)
        - Site furnishings
        - Clearing and grubbing
        - Construction Limits

    - Site Plan

        - Existing conditions (as base)
        - Major site features: roads, parking, structures, site drainage, walks, steps, walls, etc.
        - Utilities shown to scale. Use appropriate symbols for small utility items (i.e. lighting, transformers, pull boxes, manholes, inlets, etc.)
        - Discipline specific notes, legends, symbols and abbreviations.
        - Sections and elevations identified
        - Major site elements and details identified
        - Storm water protection measures
        - Construction Limits

    - Site Layout Plan

        - Existing conditions (as base)
        - Roads, parking, walks and service areas locating:

        - Dimensioned traffic markings
        - Dimensioned walks, steps, terraces, and site elements

    - Buildings and structures

        - Finish floor elevations noted
        - Roof overhangs

    - Outdoor lighting
    - Above and below ground utilities
    - Construction Limits

- Grading Plan

    - Existing conditions (as base)
    - Existing contours and spot elevations
    - Proposed grading

        - Proposed contours (maximum 2' contour interval with each 10' interval in heavier pen weight and labeled)
        - Spot elevations of key walks, ADA accessible routes, walls, parking, drainages and site elements
        - Spot elevations at top and bottom of walls, steps and ramps
        - High points, low points, swale centerlines
        - Finish floor elevations at each access point of structures

    - Tree and vegetation protection
    - Utility systems
    - Construction Limits

- Planting/Revegetation/Irrigation Plan
- Site Elevations:

    - Entrances
    - Exterior materials with major site elements
    - Dimensions

- Site Sections (One longitudinal and one transverse)

    - Typical section through site
    - Stairs
    - Site Walls

- Architecture Sheets
    - Compliance Drawings (similar to Historic Structure Report Drawings), annotated floor plans, elevations, roof plans, and building sections that illustrate the anticipated impact or effects of recommended treatments to historic structures (typically for SHPO review).
    - General Sheet(s)
        - Notes, legends, code references, fire safety plan, symbols and abbreviations legends.
    - Demolition Drawings (typically historic structures)
        - Floor Plans
            - Spaces individually delineated and labeled
            - Section cut references
            - General notes and annotations on the same sheet
            - Dimensions
            - Clearly Identify demo items
        - Roof Plans
            - Section cut references
            - Plan dimensions
            - General notes and annotations
            - Clearly Identify demo items
            - Identify roof assembly, substrate, and drainage items
        - Elevations
            - Entrances, window arrangements, doors
            - Exterior materials with major vertical and horizontal joints
            - Vertical dimensions/floor levels
            - General notes and annotations on the same sheet
            - Clearly Identify demo items
        - Building Sections
            - Floor levels
            - Vertical dimensions/floor levels
            - Spaces labeled
            - General notes and annotations on the same sheet
            - Clearly identify demo items

- New or Adaptive Use Drawings
    - Building Floor Plans
        - Spaces individually delineated and labeled
        - Section cut references
        - Enlarged layouts of special spaces
        - Door swings and marks
        - Window openings and marks
        - General notes and annotations on the same sheet
        - Plan dimensions (verified with structural)
        - Clearly Identify new work
    - Building Roof Plans
        - General notes and annotations on the same sheet
        - Section cut references
        - Plan dimensions
        - Indicate roof pitch/taper and drainage arrows
        - Gutters and downspouts
        - Primary and secondary roof drains and scuppers
        - Label roof assembly and deck materials
        - Clearly Identify new work
    - Building Elevations
        - Entrances, window arrangements, doors
        - Exterior materials with major vertical and horizontal joints
        - Roof levels and overhangs
        - Vertical dimensions and finish floor elevations
        - General notes and annotations on the same sheet
        - Clearly Identify new work
    - Building Sections (Minimum one longitudinal and one transverse)
        - Vertical floor to floor dimensions/elevations (verified with structural)
        - Stairs and elevator shafts
        - Typical ceiling heights
        - Room labels
        - General notes and annotations on the same sheet
        - Clearly Identify new work
- General roof construction details (roughed out)
- Door and Window details (roughed out)

- Typical and special construction details (roughed out)
- Interior elevations
- Reflected ceiling plans
- Room finish, hardware, door and window schedules (roughed out)
- Equipment layout (roughed out)
- Keynotes shall contain complete note, not specification number
- Keynote Legend shall be on the same sheet as keynote reference
- All accessibility dimensions shall be located directly on accessibility layout sheets, not referenced remotely to a standards sheet.

- Structural Sheets

  - General

    - Applicable Codes and Standards
    - Listing of design loads in accordance with IBC 2003, Section 1603
    - Listing of all structural materials used, including material strengths
    - Diaphragm fastening requirements
    - Requirements for special inspection IBC 2003, Chapter 17
    - List of abbreviations
    - Symbol legend

  - Standard Details

    - Standard details applicable to the project
    - Control joint details
    - Reinforcing steel splice length schedule
    - Lintel schedule(s)

  - Foundation Plan

    - Fully dimensioned foundation plan (references to the architectural drawings for foundation dimensions are unacceptable) including:

      - Overall building dimensions
      - Column gridlines
      - Location of foundation elements with respect to column gridlines
      - Size of all foundation elements
      - Foundation wall thickness

- Floor Framing Plan
    - Fully dimensioned floor framing plan (references to the architectural drawings for framing dimensions are unacceptable) including:
        - Overall building dimensions
        - Column gridlines
        - Location of framing elements with respect to column gridlines
        - Size and spacing of framing members
        - Size and direction of span of roof sheathing or decking
- Roof Framing Plan
    - Fully dimensioned roof framing plan (references to the architectural drawings for framing dimensions are unacceptable) including:
        - Overall building dimensions
        - Column gridlines
        - Location of framing elements with respect to column gridlines
        - Size and spacing of framing members
        - Size and direction of span of floor sheathing or decking
- Details
    - Foundation Details
    - Floor Framing Details
        - Loading diagrams for special load cases for steel bar joists
        - Column schedules for steel buildings
        - Column and beam schedules for concrete buildings
    - Roof Framing Details
        - Loading diagrams for special load cases for steel bar joists
        - Column schedules for steel buildings
        - Column and beam schedules for concrete buildings
        - Prefab wood truss profiles with loading diagrams for all load cases

- Mechanical

  - Discipline specific notes, legends, code references, symbols and abbreviations.
  - Preliminary equipment sizes, locations, and capacities
  - Preliminary equipment layout plans for mechanical rooms
  - Floor plans for: HVAC, plumbing, and fire protection systems
  - Preliminary HVAC system schematics and flow diagrams
  - Acoustical and vibration control measures
  - Energy conservation measures

- Electrical

  - Discipline specific notes, legends, code references, symbols and abbreviations.
  - Power, telephone, and telecommunication distribution to project: plan and details
  - Site electrical plan showing routing with transformers, generators and vaults drawn to scale
  - Approximate sizes, locations and capacities of major components
  - Preliminary equipment layouts plan for electrical rooms
  - Roof plan for lightning protection
  - Floor plans for: lighting, power, telephone, security, fire detection systems
  - Light fixture schedule
  - Single line diagrams for: power distribution, fire alarm and security systems

Division 1 Specifications

- Use the Division 1 Specification Templates. Templates shall be edited to meet requirements of this project.

Division 2 through 16 Outline Specifications

- Use the Guide for Writing Outline Specifications

Initiate Constructability Analysis

- Initiate Constructability Analysis

Product File

- Assemble product file of preferred/selected material samples and literature from all disciplines.

Updated Class B Construction Cost Estimate

- Class B Construction Cost Estimates shall be prepared in a format matching the Class B Construction Cost Estimate sample.

Draft Design Development Documents Submittal Formats

- Submit Draft Design Development Documents in Hard Copy Formats. Draft Design Development Drawings shall also be submitted in Electronic Format.

    - Completed Design Development Drawings
    - Division 1 Specifications
    - Divisions 2 through 16 Outline Specifications
    - Product File
    - Updated Class B Construction Cost Estimate

Responses to Draft Design Development Documents Submittal Review Comments

- NPS Review Form with Responses

CONSTRUCTION DOCUMENTS

100% Draft Construction Documents shall consist of the following (Additional types of documents and information may be required for certain projects.):

Construction Drawings

- Standard cover sheet
- Index sheet (may be included on cover sheet)
- General Sheets
    - Overall site plan showing total project
        - Existing conditions (as base)
        - Contractor staging areas (construction storage, field office, construction camp) with adequate space or sequencing needs
        - Construction limits
        - Construction access
        - Survey control, monuments and benchmarks with coordinates and elevations
        - Property lines with bearings, easements, utility corridors and setbacks
        - Proposed construction (i.e. outline of new structures, utilities, roadways, walks)
        - Unique construction requirements
    - Existing conditions plan
        - Existing contours and spot elevations
        - Existing buildings and other structures
        - Existing site features: roads, parking, structures, walks, steps, walls, etc.
        - Existing utilities, above and below ground, shown to scale (inlets, lift stations, propane tanks, septic tanks, culverts, etc.) include spot elevations for each, invert elevations for all below ground structures. Use appropriate symbols for small utility items (i.e. lighting, transformers, pull boxes, manholes, inlets, etc.)
        - Existing land features and vegetation
    - Overall symbol legend and abbreviations list, if applicable.
    - Demolition plan, as appropriate. Demolition may be shown on discipline sheets if more appropriate.

- Civil Engineering Sheets
  - Site Plan
    - Existing conditions (as base)
    - Discipline specific notes, legends, code references, symbols and abbreviations.
    - Monuments and benchmarks identified with coordinates and elevations.
    - Site features: roads, parking, structures, walks, steps, walls, etc.
    - Utilities shown to scale (lighting, transformers, pull boxes, manholes, inlets, lift stations, propane tanks, septic tanks, culverts, etc.) Use appropriate symbols for small utility items (i.e. lighting, transformers, pull boxes, manholes, inlets, etc.
    - Geotechnical testing areas, boring locations, percolation test holes
    - Construction limits
  - Road and Parking
    - Existing conditions (as base) with plan and profile sheet outlines, as appropriate.
    - Plan and profile sheets
    - Typical cross-sections
    - Road and parking cross-sections
    - Road and parking centerline stations, bearings, distances, and curve data (layout tables, as appropriate)
    - Intersections and other site radii identified with radius and coordinates
    - Construction limits
  - Storm Water
    - Existing conditions (as base)
    - Collection, treatment (i.e. settlement ponds), and layouts (plan and profile sheets, as appropriate)
    - Structures plans, elevations and details
    - Construction limits
  - Utilities Plans
    - Existing conditions (as base)
    - Water pumping, treatment, storage, and distribution system layout and profile (plan and profile sheets, as appropriate),

component sizes, material callouts
    - Wastewater collection, treatment, and disposal system layout and profile, component sizes, material callouts
    - System processes and flow diagrams
    - Utilities (identified for removal or abandonment, as appropriate)
    - Construction limits

  - Project Details

    - Details (i.e. trenching details, thrust blocks, water/sewer line crossings, silt fence, sewer cleanouts, manholes, valves and boxes, curb stops, fire hydrants, air release valves, sewage air release valves, irrigation details, pressure relief valves, meters and boxes, pressure regulators, check valves and boxes, backflow preventors, septic tanks, absorption trenches, distribution boxes, piping connections, water well details, lift station details, storm water details, storage tank details)

- Landscape Architecture Sheets

  - Demolition Plan (if required)

    - Existing conditions (as base)
    - Structures
    - Plant material (tree protection, plants to be removed or salvaged)
    - Utilities (identified for removal or abandonment)
    - Storm water protection
    - Site furnishings
    - Clearing and grubbing
    - Construction limits

  - Site Plan

    - Existing conditions (as base)
    - Discipline specific notes, legends, symbols and abbreviations.
    - Storm water protection
    - Site features: roads, parking, structures, walks, steps, walls, etc.
    - Utilities shown, as appropriate, to scale (lighting, transformers, pull boxes, manholes, inlets, lift stations, propane tanks, septic tanks, culverts, etc.) Use appropriate symbols for small utility items (i.e. lighting, transformers, pull boxes, manholes, inlets, etc.
    - Sections and elevations identified
    - Site elements and details identified

- Construction limits

- Site Layout Plan

    - Existing conditions (as base)
    - Roads, parking, walks and service areas:

        - Coordinates for building and site layout (identify location of point – foundation, finish wall. . .)
        - Coordinates for all corner points of walks, parking, walls, and site features (identify location of point – foundation, face of curb. . .)
        - Control point, corner point, and radius point tables
        - Dimensioned traffic markings
        - Dimensioned walks, steps, walls with footings, terraces, drainage and utility structures, and site elements

    - Buildings and structures

        - Finish floor elevations noted
        - Roof overhangs, footings

    - Outdoor lighting
    - Above and below ground utilities, as appropriate
    - Construction limits

- Grading Plan

    - Existing conditions (as base)
    - Existing contours and spot elevations
    - Proposed grading

        - Proposed contours (maximum 2' contour interval with each 10' interval in heavier pen weight and labeled)
        - Spot elevations at all change in gradient, at all corners of walks, walls, parking, drainage inlets and outlets, and all site elements
        - Spot elevations at top and bottom of walls, steps and ramps
        - High points, low points, swale centerlines
        - Storm water protection elements
        - Finish floor elevations at each access point of structures

    - Tree and vegetation protection
    - Utility systems
    - Construction limits

- Planting/Revegetation/Irrigation Plan
    - Plant list with quantities and symbols
    - Details and cross-sections
- Site Details
    - Paving, finishes
    - Erosion control (Storm water protection)
    - Accessibility
    - Stairs, handrails, ramps
    - Site furnishings
    - Typical and special construction details
- Site Elevations
    - Entrances
    - Exterior materials with major site elements
    - Dimensions
- Site Sections
    - Typical sections
    - Stairs
    - Site Walls
    - Material changes/connections, paving (curb/walk)
    - Key site elements
- Sign Plan
    - Traffic signs (park wayfinding and MUTCD)
    - Accessible signs
    - Interpretive signs and waysides
    - Pedestrian and trail signs
    - Unique construction signs

- Architecture Sheets
    - Finalized General sheet(s)
        - Notes, legends, code references, fire safety plan, symbols and abbreviations legends.
        - Wall types

- Finalized Demolition Drawings with Legends
    - Floor Plans
        - Spaces individually delineated and labeled
        - Section cut references
        - General notes and annotations on the same sheet
        - Dimensions
        - Clearly Identify demo work
    - Roof plans
        - Section cut references
        - Plan dimensions
        - General notes and annotations
        - Clearly Identify demo work
    - Building Sections
        - Floor levels
        - Vertical dimensions/floor levels
        - Spaces labeled
        - General notes and annotations on the same sheet
        - Clearly Identify demo work
    - Building Elevations
        - Entrances, window arrangements, doors
        - Exterior materials with major vertical and horizontal joints
        - Roof levels and overhangs
        - Vertical Dimensions
        - General notes and annotations on the same sheet
        - Clearly identify demo work
- Finalized New or Adaptive Use Drawings
    - All Building Floor Plans
        - Spaces individually delineated and labeled
        - Section cuts and detail references
        - Enlarged layouts of special spaces (dimensioned)
        - Plan Dimensions (verified with structural)
        - Finish floor elevations
        - Door swings and marks
        - Window openings and marks
        - Stairs and elevators

- Overhead openings dashed
- General notes and annotations on the same sheet
- Material legends
- Clearly distinguish new work from existing

- All Building Roof Plans

    - General notes and annotations on the same sheet
    - Section cut references
    - Plan dimensions
    - Indicate roof pitch/taper and drainage arrows
    - Gutters and downspouts
    - Primary and secondary roof drains and scuppers
    - Label roof assembly and deck materials
    - Clearly distinguish new work from existing
    - Identify plumbing, HVAC and electrical roof penetrations, equipment, and architectural features

- All Building Elevations

    - Entrances, window arrangements, doors
    - Exterior materials with major vertical and horizontal joints
    - Roof levels and overhangs dimensioned
    - Vertical dimensions and elevations
    - General notes and annotations on the same sheet
    - Clearly distinguish new work from existing

- Building Sections (minimum one longitudinal and one transverse)

    - Floor to floor dimensions (verified with structural)
    - Vertical dimensions with elevation targets
    - Stairs and elevator shafts
    - Typical ceiling heights
    - Room labels
    - General notes and annotations on the same sheet
    - Building and wall section references
    - Detail references
    - Clearly distinguish new work from existing

- Interior elevations

    - Floor to floor dimensions with elevation targets
    - Doors and windows
    - Wall finishes
    - Ceiling heights and finishes

        - Materials legends
        - Clearly distinguish new work from existing
        - Floor finishes
        - Accessories with legends

    - All Reflected ceiling plans

        - Ceiling configuration and materials legends
        - Lighting fixture layout
        - Clearly distinguish new work from existing

    - All roof construction details
    - All wall sections referenced to building plans and sections
    - All roof, door, and window details referenced to plans and schedules
    - All special construction details
    - All Room finish, hardware, door and window schedules
    - All millwork plans, sections, elevations, and details
    - All Equipment layouts dimensioned
    - Keynotes shall contain complete note, not specification number
    - Keynote Legend shall be on the same sheet as keynote reference
    - All accessibility dimensions shall be located directly on accessibility layout sheets, not referenced remotely to a standards sheet.

- Structural Sheets

    - General

        - Applicable Codes and Standards
        - Listing of design loads in accordance with IBC 2003, Section 1603
        - Listing of all structural materials used, including material strengths
        - Diaphragm fastening requirements
        - Requirements for special inspection IBC 2003, Chapter 17
        - List of abbreviations
        - Symbols legend

    - Standard Details

        - Standard details applicable to the project
        - Control joint details
        - Reinforcing steel splice length schedule

- Lintel schedule(s)

- Foundation Plan

    - Fully dimensioned foundation plan (references to the architectural drawings for foundation dimensions are unacceptable) including:

        - Overall building dimensions
        - Column gridlines
        - Location of foundation elements with respect to column gridlines
        - Location of slab edges
        - Location of control joints
        - Location of slab recesses
        - Location of elevator pits
        - Location of footing and foundation wall steps
        - Location of foundation wall masonry ledges
        - Size of all foundation elements
        - Foundation wall thickness
        - Top of footing elevations (locating top of footing with respect to finished grade is not acceptable)
        - Masonry ledge elevations
        - Top of wall elevations
        - All required section cuts

- Floor Framing Plan

    - Fully dimensioned floor framing plan (references to the architectural drawings for framing dimensions are unacceptable) including:

        - Overall building dimensions
        - Column gridlines
        - Location of framing elements with respect to column gridlines
        - Top of beam elevations
        - Size and spacing of framing members
        - Locations of openings for floor penetrations
        - Size and direction of span of floor sheathing or decking
        - Camber requirements
        - All required section cuts

- Roof Framing Plan

    - Fully dimensioned roof framing plan (references to the

architectural drawings for framing dimensions are unacceptable) including:

- Overall building dimensions
- Column gridlines
- Location of framing elements with respect to column gridlines
- Top of beam elevations
- Size and spacing of framing members
- Locations of openings for roof penetrations
- Size and direction of span of roof sheathing or decking
- Camber requirements
- All required section cuts

- Details

  - Foundation Details

    - Footing/foundation wall details showing relationship to floor structural system
    - Piling/pile cap details showing relationship to floor structural system

  - Floor Framing Details

    - Connection Details
    - Loading diagrams for special load cases for steel bar joists
    - Column and base plate schedules for steel buildings
    - Column and beam schedules for concrete buildings

  - Roof Framing Details

    - Connection Details
    - Loading diagrams for special load cases for steel bar joists
    - Column and base plate schedules for steel buildings
    - Column and beam schedules for concrete buildings
    - Prefab wood truss profiles with loading diagrams for all load cases

- Mechanical Sheets

  - Site mechanical plan (if applicable, with all features drawn to scale)

    - Detail drawings showing major mechanical details and sections,

including all piping and ductwork connections to mechanical equipment.

- Mechanical floor plans (HVAC, plumbing, and fire protection), with all cross-references between sheets

    - Enlarged scale mechanical plans for mechanical rooms where all necessary plan information cannot be conveyed at a smaller drawing scale.

- Discipline specific notes, legends, code references, symbols and abbreviations.
- HVAC system schematics and flow diagrams
- Mechanical equipment schedules
- Plumbing fixture connection schedule
- Plumbing isometrics or riser diagrams for water systems and drain, waste, and vent (DWV) systems for each restroom, plumbing stack, or other groups of plumbing fixtures where all information cannot be shown on plan sheets
- HVAC control schematics and sequences of operation

- Electrical Sheets

    - Electrical floor plans, with all cross-references between sheets
    - Enlarged scale electrical plans for critical spaces where all necessary plan information cannot be conveyed at a smaller drawing scale
    - Site electrical plan showing routing with transformers, generators and vaults drawn to scale
    - Detail drawings showing major electrical details and sections, including conduit routing to major electrical equipment
    - Branch circuiting for all electrical devices
    - Discipline specific notes, legends, code references, symbols and abbreviations.
    - Panel board and light fixture schedules
    - Fire alarm matrix, riser and device location plans
    - Lightning protection plans
    - Telecommunication plans
    - Security system plans
    - Control wiring diagrams

Division 1 through 16 Construction Specifications

- Table of Contents: Indicate specification section number, title, and the number of sheets per section.

- Guide for Specifiers, February 2005

- Division 1 Specifications

  - Update content in Design Development Division 1 Specification Templates and comply with Construction Specifications Institute's (CSI) Master Format.

- Division 2 through 16 Construction Specifications

  - Division 2 through 16 Construction Specifications shall match the format of Division 1 Specifications.

Contract Price Schedule or Construction Bid Schedule

- Use the Contract Price/Bid Schedule Template.

Product File

- Copies of catalog cuts, as necessary, to explain all work.

Class A Construction Cost Estimate

- Class A Construction Cost Estimate shall be prepared in a format matching the Class A Construction Cost Estimate sample.

List of Required Construction Submittals

- Use the NPS Submittals Template.

List of Operation and Maintenance (O&M) Requirements

- Use the List of Required O&M Data template.

Final Constructability Analysis Checklist

- Finalize the constructability analysis utilizing the Constructability Checklist.

Design Calculations

- Provide all design calculations used to arrive at the final design with narrative, as necessary, to explain all work. The following list is an example of possible calculations that may apply. Additional types of calculations may be required for certain projects:

- Earthwork Design Calculations and Data

- Cut/fill calculations

- Water/Wastewater Calculations and Data

  - Utility sizing calculations

- Structural Design Calculations and Data

  - Final structural calculations, including:

    - Structural design criteria
    - References to applicable code sections (IBC, ACI, AISC, etc.)
    - References to applicable portions of the structure
    - Dead load calculations
    - Snow load calculations
    - Roof/floor live load calculations
    - Wind load calculations
    - Seismic load calculations
    - Gravity system calculations
    - Lateral system calculations
    - Connection design calculations
    - Foundation system calculations

- HVAC Design Calculations and Data

  - Building U value calculations for each conditioned building, demonstrating compliance with ASHRAE 90.1
  - Heating and cooling load calculations for each building, including summaries of all input data, zoning maps, and any assumptions that were made
  - Outside air (ventilation air) calculations
  - Exhaust air calculations
  - Psychometric calculations
  - Heating, cooling, humidifying, and ventilating equipment sizing calculations
  - Pump and fan static pressure calculations and selection curves

- Plumbing Design Calculations and Data

  - Water service and sanitary sewer service capacity calculations for each building
  - Roof drain and drain leader calculations for each building, as applicable
  - Domestic water heater capacity calculations
  - Fuel gas system capacity calculations for each building, if applicable

- Fire Protection Design Calculations and Data

  - Hydraulic calculations for all fire sprinkler systems
  - Hydrant flow test data, if applicable
  - Fire pump and jockey pump capacity calculations, if applicable
  - Pressure tank capacity calculations, if applicable

- Electrical Design Calculations and Data

  - Electrical service calculations for each building
  - Fault current calculations and load summary

100% Draft Construction Documents Submittal Formats

- Submit 100% Draft Construction Documents in Hard Copy Formats. 100% Draft Construction Drawings shall also be submitted in Electronic Format.

  - Construction Drawings
  - Division 1 through 16 Construction Specifications
  - Contract Price Schedule or Construction Bid Schedule (cost fields blank)
  - Contract Price Schedule or Construction Bid Schedule (cost fields filled in based on Class A Construction Cost Estimate
  - Product File
  - Class A Construction Cost Estimate
  - List of Required Construction Submittals
  - List of Operation and Maintenance (O&M) Requirements
  - Final Constructability Analysis Checklist
  - Design Calculations

100% Complete Construction Documents Submittal Formats

- Submit Complete Construction Documents in Hard Copy Formats. 100% Complete Construction Drawings shall also be submitted in Electronic Format.

  - Construction Drawings
  - Division 1 through 16 Construction Specifications
  - Contract Price Schedule or Construction Bid Schedule (cost fields blank)
  - Contract Price Schedule or Construction Bid Schedule (cost fields filled in based on Class A Construction Cost Estimate
  - Product File
  - Class A Construction Cost Estimate

- List of Required Construction Submittals
- List of Operation and Maintenance (O&M) Requirements
- Final Constructability Analysis Checklist
- Design Calculations

Final Construction Documents Submittal Formats

- Submit Final Construction Documents in both Hard Copy Format and Electronic Format.

  - Final Construction Drawings
  - Final Division 1 through 16 Construction Specifications
  - Final Contract Price Schedule or Construction Bid Schedule
  - Final Contract Price Schedule or Construction Bid Schedule (cost fields blank)
  - Final Contract Price Schedule or Construction Bid Schedule (cost fields filled in based on Class A Construction Cost Estimate
  - Supplemental Design Reports
  - Final Class A Construction Cost Estimate
  - Final List of Required Submittals
  - Final List of Operation and Maintenance (O&M) Requirements
  - Final Design Calculations

SUBMITTAL FORMATS

Hard-Copy Document Submittal Format

Pre-design and Schematic Design Submittals

- 8-1/2" x 11" portrait and/or with 11" x 17" fan-fold ½ size drawings (reports only), as appropriate.
- Plastic comb bind all hard-copy sections with a cover page, table of contents, numbered pages, and page-dividers that mirror the NPS Workflow sequence. Use cover-stock for cover and back page (Break into volumes as appropriate.).
- Where required, provide NPS Review Form with Responses as an appendix to the document.

Design Development Submittals

In addition to the above the following applies:

- Design Development Drawings
    - 2 staple bind with black strip binding.
    - No cover stock
- Division 1 Specifications and Division 2 through 16 Outline Specifications
    - Bind specifications separate from drawings
    - Provide Table of Contents with Divisions, Specification Section Numbers, Specification Section Titles and number of sheets in each Specification Section.
    - Font: Times New Roman 11 point
    - When appropriate, break specifications into volumes at logical breaking points (i.e. between divisions). Cover Sheet shall note volume and divisions included.
- Product File
    - Bind separate from other documents
- Class B Construction Cost Estimate
    - Bind separate from other documents

Construction Documents Submittals

In addition to the above, the following applies:

- Construction Drawings
    - 100% Draft Construction Drawings
        - Same format as Design Development Drawings
    - 100% Complete Construction Drawings
        - Same format as 100% Draft Construction Drawings
    - Final Construction Drawings
        - Final Construction Drawings shall have the following completed prior to printing:
            - All NPS approvals
            - All A/E stamps and signatures
            - Contract Solicitation Number
                - The Contract Solicitation Number shall be affixed to the cover sheet.
                - The Contract Solicitation Number will be furnished by the DSC Project Manager upon request.
                - If the project is going to be shelved, the Contract Solicitation Number is not required.
        - Half-size Construction Drawings
            - Same format as 100% Complete Construction Drawings
        - Full-size Construction Drawings print media requirements:
            - Paper
                - Full-size (ANSI D) 22” x 34” prints, on 20 pound white engineering bond paper, 400 dots per inch resolution.
                - Bind separately
                    - 3 staple bind with black strip binding.
                    - No cover stock
            - Mylar
                - Full-size (ANSI D), 22” x 34” prints, 0.004 inch

thickness, 400 dots per inch resolution.
    - Mylar copies of approved Final Construction Drawings will be required when a project is expected to be shelved for a time period of 9 months or greater before construction occurs.

- Division 1 through 16 Construction Specifications
    - 100% Draft Division 1 through 16 Construction Specifications
        - Bind separate from drawings
        - Font: Times New Roman 11 point
        - Paper Size: 8-1/2" x 11" portrait
        - Headers and Footers
            - Headers are not used for NPS Specifications.
            - Footer formatting shall be consistent for all specification sections
            - Spec section number and page number on the right upper corner of the footer (flush right)
            - Spec title in all caps below page number (flush right)
            - Park and PMIS number on the upper left of footer (flush left)
        - Provide Table of Contents with Divisions, Specification Section Numbers, Specification Section Titles and number of sheets in each Specification Section.
    - 100% Complete Division 1 through 16 Construction Specifications
        - Same format as 100% Draft Division 1 through 16 Construction Specifications
    - Final Division 1 through 16 Construction Specifications
        - Same format as 100% Complete Division 1 through 16 Construction Specifications
- Contract Price Schedule or Construction Bid Schedule
    - 100% Draft Construction Documents and 100% Complete Construction Documents
        - Add as appendix to Specifications.
    - Final Construction Documents

        - Separate, unbound

- Final Product File

    - Include Table of Contents
    - Plastic comb bind separately

- Class A Construction Cost Estimate

    - 100% Draft Construction Documents and 100% Complete Construction Documents

        - Add as appendix to Specifications.

    - Final Construction Documents

        - Separate, unbound

- List of Required Submittals

    - 100% Draft Construction Documents and 100% Complete Construction Documents

        - Add as appendix to Specifications.

    - Final Construction Documents

        - Separate, unbound

- List of Operation and Maintenance (O&M) Requirements

    - 100% Draft Construction Documents and 100% Complete Construction Documents

        - Add as appendix to Specifications.

    - Final Construction Documents

        - Separate, unbound

- Final Constructability Analysis

    - 100% Draft Construction Documents and 100% Complete Construction Documents

        - Add as appendix to Specifications.
    - Final Construction Documents
        - Separate, unbound
- Design Calculations
    - Include Table of Contents
    - Plastic comb bind as a separate document

Electronic Document Submittal Format

Software Requirements

- Text Files
    - Use MS Word for text documents.
- Presentation Files
    - Use MS PowerPoint for presentations.
- Spread Sheet Files
    - Use MS Excel for spread sheets.
    - Use MS Excel software or other NPS-approved equivalent estimating software for Construction Cost Estimates.
- Image Files
    - Use JPEG format for photographs.
    - Use TIF format for graphic images (i.e. lines and text) and hand-drawn documents.
    - PDF and TIF files shall be 300 dots per inch resolution files.
- CAD Files
    - Use AutoCAD for drawing files.

Folder and File Requirements

- Folder name shall match Deliverable Submittal Milestone Title (i.e. Final Predesign Documents, Final Schematic Design Documents, etc.)

- If sub-folders are required, names shall match Deliverable Submittal Component Title (i.e. Construction Drawings, Construction Specifications, etc.)

- File names shall match Deliverable Submittal Component Titles (i.e. Project Program, Class C Construction Cost Estimate, etc.)

    - Final Predesign Documents and Final Schematic Design Documents

        - Assemble into discrete electronic volumes for the DSC Technical Information Center (TIC).

            - All TIFF files shall be in an individual folder.
            - All non-TIFF files shall be in an individual folder.

        - Development Advisory Board (DAB) Support Documents

            - Final Predesign Documents: Provide each Final Predesign Subcomponent (i.e. Project Program, Cost Comparability Data) as an individual Adobe *.pdf file. Each subcomponent file name shall follow the following naming convention: “Park space PMIS # space Date space Subcomponent Name.pdf” (i.e. SEKI 005555 11-05-06 Project Program.pdf). All Final Predesign Subcomponents shall be placed in a folder named “Park space PMIS # space Date space Final Predesign Documents“(i.e. SEKI 005555 11-05-06 - Final Predesign Documents).
            - Final Schematic Design Documents: Utilize the same format and file/folder naming convention for Final Schematic Design Documents as used above for Final Predesign Documents.

    - 100% Draft and 100% Complete Construction Documents

        - Specification Files

            - Each Construction Specification Section shall be an individual file.
            - Construction Specifications shall have a Table of Contents (CSI Division Title, Section Number, Section Title, and number of pages per Section)
            - Use 5 digit CSI section numbers for file names.

- Drawings Files

    - Each drawing sheet shall be an individual file.
    - Each discipline shall have its own folder name (i.e. LA, ARCH, STRUC, etc.).
    - General sheets, including the cover sheet and index sheet, shall be placed in a folder named GEN.
    - Each individual CAD file shall be labeled with the sub-sheet number and sub-sheet name (i.e. A001 FLOOR PLAN, S007 DETAILS, C002 DEMO PLAN, etc.)

        - File names shall not exceed more than 18 characters in length (the 18 characters includes the dot, and extension).
        - File names shall only include alpha (A-Z), numeric (0-9) and spaces.

    - All bases and xref files shall be in a folder named BASES.
    - All AutoCAD drawings with xrefs shall be formatted with relative xref paths (i.e. ..\BASES\xafloorplan.dwg) so that the xrefs load properly directly from a CD.

- Final Construction Documents

    - Specification Files

        - In addition to the 100% Draft and 100% Complete Specification Files, the Final Construction Specification Files shall also be provided in PDF file format with linked table of contents and cover sheet.

            - Utilize Standard NPS Cover Sheet Template for Cover Sheet.
            - To create PDF:

                - First, create a Master File in MS Word that contains the Cover Sheet, all specification files, and a linked Table of Contents.
                - Convert Master File into a single PDF file utilizing Adobe Acrobat software (Do not scan.).
                - PDF files shall not exceed 10MB and may need to be divided into separate volumes. Break volumes at logical breaking points i.e.

between divisions. Cover sheet shall note volume and divisions included. Use Standard NPS Cover Sheet.

- Drawings Files
    - In addition to the 100% Draft and 100% Complete Drawing Files, the Final Construction Drawings shall also be provided in PDF and TIF file formats.
        - To create PDF's and TIF's scan full-size hard copy (ANSI D) 22" x 34" construction drawing prints at 300dpi.
            - Before scanning the Final Construction Drawings the following should be completed and applied to the Final Construction Drawings:
                - All NPS approvals
                - All A/E stamps and signatures
                - Contract Solicitation Number:
                    - The Contract Solicitation Number shall be added to the cover sheet.
                    - The Contract Solicitation Number will be furnished by the PM upon request.
                    - If the project is going to be shelved, the Contract Solicitation Number is not required.
        - Each Construction Drawing Sheet scan shall be an individual file.
        - Individual TIF and PDF files shall not exceed 5 MB in file size. Occasionally, for a limited number of construction drawings, regular scanning will not adequately capture the level of detail required. When this occurs, with prior approval from the Project Manager, gray scale scanning shall be utilized. Gray scale scanned files shall not exceed 10 MB in file size.
        - Each TIF or PDF file shall be named as follows:
            - (Sheet number)(space)(OF)(space)(Total number of sheets)(space)(Sub-sheet number)(space)(Title of Sheet) i.e.:

        - 0001 OF 0038 G001 COVER
        - 0012 OF 0035 C001 DEMO PLAN
        - 0018 OF 0067 A012 S ELEV

    - File names shall not exceed more than 31 characters in length (the 31 characters includes the dot, and extension).
    - File names shall only include alpha (A-Z), numeric (0-9) and spaces.
    - The Autocad drawing file name shall be maintained within each PDF and TIF file name.

  - The A/E shall ensure the AutoCAD (.dwg), TIF, and PDF files all print identical when printed as half-size and full-size drawings.

- Image Files

  - All image files (.jpg, .tif, .bmp) shall be in a folder named IMAGES.
  - Use descriptive names to identify file content.

Media Requirements

- All electronic files submitted shall be copied to CD ROM(s).

  - CD ROMs shall be formatted single session; finalized disk; Joliet or ISO 9660 Level 2 file system and clearly labeled (electronically printed) with the following project information:

    - Recipient (TIC, CS, PM)
    - Park four-letter alpha code
    - PMIS Number
    - Deliverable milestone (i.e. Final Pre-Design)
    - Drawing Number
    - Project Title
    - Location within Park
    - Date submitted (i.e. December 14, 2004)
    - Name of A/E Prime Contractor

  - Deliver individual CD ROMs in Clear Slim Jewel Cases unless otherwise specified.

  - When submissions consist of 2 or more CD ROMs, each CD ROM shall be numbered sequentially, including the total number of CD

ROMs in the submission (i.e. 3 of 6).

- 100% Final Predesign Documents and 100% Final Schematic Design Documents CD ROMs shall be placed in CD ROM page holders and inserted as an appendix to the TIC paper submittal.

- DAB Documents CD ROM(s) shall be placed in Clear Slim CD Jewel Cases.

- Design Development Drawings, 100% Draft Construction Drawings, and 100% Complete Construction Drawings CD ROMs shall be placed in CD ROM page holders and inserted as an appendix to the Construction Specifications.

- Final Construction Documents CD ROMs shall be placed in Clear Slim CD Jewel Cases.